DRONACHARYA
Group of Institutions

B-27, Knowledge Park – III, Greater Noida, Uttar Pradesh - 201308
Approved by: All India Council for Technical Education (AICTE), New Delhi
Affiliated to: Dr. A. P. J. Abdul Kalam Technical University (AKTU), Lucknow

Department: Information Technology

Academic Year -2024-25

Course Outcomes

B.TECH.5th SEM

Database Management System (BCS501)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Apply knowledge of database for real life applications.	K3
(CO2)	Apply query processing techniques to automate the real time problems of databases.	K3, K4
(CO3)	Identify and solve the redundancy problem in database tables using normalization.	K2, K3
(CO4)	Understand the concepts of transactions, their processing so they will familiar with broad range of database management issues including data integrity, security and recovery.	K2, K4
(CO5)	Design, develop and implement a small database project using database tools.	K3, K6

Web Technology (BCS502)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Understand the fundamental concepts of web development, including the history, protocols, and tools. Apply HTML and XML in the development of web projects.	K3, K6
(CO2)	Apply CSS for designing and styling web pages, including the use of CSS properties, styling elements, and advanced techniques for creating responsive web sites.	K2, K3
(CO3)	Develop interactive web applications using JavaScript and AJAX, with a focus on scripting documents, forms, and networking concepts such as internet addressing and TCP/IP sockets.	K3, K6
(CO4)	Design and implement server-side applications using Enterprise Java Beans (EJB) and Node.js, including the creation of JavaBeans, RESTful APIs, and database operations with MongoDB.	K2, K4, K6

(CO5)	Implement web server functionality using Servlets and Java Server Pages(JSP), focusing on handling HTTP requests, session tracking, and utilizing custom tag libraries for dynamic web content.	K2, K3, K4

Design and Analysis of Algorithm (BCS503)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Design new algorithms, prove them correct, and analyze their asymptotic and absolute runtime and memory demands.	K4, K6
(CO2)	Find an algorithm to solve the problem (create) and prove that the algorithm solves the problem correctly (validate).	K5, K6
(CO3)	Understand the mathematical criterion for deciding whether an algorithm is efficient, and know many practically important problems that do not admit any efficient algorithms.	K2, K5
(CO4)	Apply classical sorting, searching, optimization and graph algorithms.	K2, K4
(CO5)	Understand basic techniques for designing algorithms, including the techniques of recursion, divide-and-conquer, and greedy.	K2, K3

Database Management System Lab (BCS551)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Understand and apply oracle 11 g products for creating tables, views, indexes, sequences and other database objects.	K2, K4
(CO2)	Design and implement a database schema for company data base, banking data base, library information system, payroll processing system, student information system.	K3, K5
(CO3)	Write and execute simple and complex queries using DDL, DML, DCL and TCL.	K4, K5 CO 4
(CO4)	Write and execute PL/SQL blocks, procedure functions, packages and triggers, cursors.	K4, K5
(CO5)	Enforce entity integrity, referential integrity, key constraints, and domain constraints on database.	K3, K4

Web Technology Lab
(BCS552)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Understanding fundaments of website development and apply HTL and XML languages for development of websites	K2, K4
(CO2)	Applying CSS in designing and development of responsive website for compatibility of various devices.	K2, K3, K5
(CO3)	Understand, analyze and design the role of JavaScript for dynamic web pages.	K2, K4, K5
(CO4)	Design and deploy different components using Java Bean, Node.js and database tables using MongoDB and produce various results based on given query.	K4, K5
(CO5)	Design and deploy server-side java application called Servlet & JSP tools to catch form data sent from client, process it and store it on database.	K3, K4

Design and Analysis of Algorithm Lab
(BCS553)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Understand and implement algorithm to solve problems by iterative approach.	K2, K4
(CO2)	Understand and implement algorithm to solve problems by divide and conquer approach.	K3, K5
(CO3)	Understand and implement algorithm to solve problems by Greedy algorithm approach.	K4, K5
(CO4)	Understand and analyze algorithm to solve problems by Dynamic programming, backtracking.	K4, K5
(CO5)	Understand and analyze the algorithm to solve problems by branch and bound approach.	K3, K4

Compiler Design (BIT052)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Acquire knowledge of different phases and passes of the compiler and also able to use the compiler tools like LEX, YACC, etc. Students will also be able to design different types of compiler tools to meet the requirements of the realistic constraints of compilers.	K3, K6
(CO2)	Understand the parser and its types i.e. Top-Down and Bottom-up parsers and construction of LL, SLR, CLR, and LALR parsing table.	K2, K6
(CO3)	Implement the compiler using syntax-directed translation method and get knowledge about the synthesized and inherited attributes.	K4, K5
(CO4)	Acquire knowledge about run time data structure like symbol table organization and different techniques used in that.	K2, K3
(CO5)	Understand the target machine's run time environment, its instruction set for code generation and techniques used for code optimization.	K2, K4

Compiler Graphics (BCS053)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Understand the graphics hardware used in field of computer graphics.	K2
(CO2)	Understand the concept of graphics primitives like lines and circle based on different algorithms.	K2, K4
(CO3)	Apply the 2D graphics transformations, composite transformation and Clipping concepts.	K4
(CO4)	Apply the concepts of and techniques used in 3D computer graphics, including viewing transformations.	K2, K3
(CO5)	Perform the concept of projections, curve and hidden surfaces in real life.	K2, K3

Data Warehousing and Data Mining (BCS058)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Be familiar with mathematical foundations of data mining tools.	K1 , K2
(CO2)	Understand and implement classical models and algorithms in data warehouses and data mining	K3
(CO3)	Characterize the kinds of patterns that can be discovered by association rule mining, classification and clustering.	K1 , K2
(CO4)	Master data mining techniques in various applications like social, scientific and environmental context.	K3
(CO5)	Develop skill in selecting the appropriate data mining algorithm for solving practical problems.	K1 , K2